

A Survey of Free (or Cheap) Graphing Utilities

Some opening notes and disclaimers:

- **With the digitization of education, many people are looking for an alternative, supplement, or replacement for the overhead projector.**
- **Though we will focus on a few emulators and graphing programs, this is a survey and not a "how-to."**
- **Choose the utility that best works for the exercise or application you are performing.**
- **I am not an expert with any of these!**
- *Hence the objective: find a graphing utility for you to explore deeper and implement in your classroom*

So, the list...

1) Virtual TI

2) TI Connect

3) TI Smartview

4) Geogebra

5) Winplot

6) Wingeom

7) WCM Grapher

8) Graph 4.3

Note: Links to programs may not work on your computer.

Virtual TI

The website... (click here)

The emulator... (sorry, can't click here)
(What's an emulator?)

The pluses

- It is a familiar sight; keystrokes can be followed.
- Can be run via mouse or keyboard.
- You can emulate most TI calculators.
- You can transfer programs, lists, etc. from your TI calculator.
- Potential availability to students.

TI Connect

The minuses

- Visibility (for the aged...)
- Free means you must already own the TI calculator!
- Compatibility with CBR/CBL?

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TI Connect

What is it?

The website (click here...)

The program (click here...)

This software is a must-have for use with the Virtual TI, TI Smartview, or any TI graphing calculator in general.

TI connect allows you to take screen shots of your calculator, explore your device, and transfer programs, applications, and other data back and forth between your computer and calculator.

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TI Smartview

The website (click here...)

The program (click here...)

The pluses

- Another familiar sight; visible key sequence.
- Emulates TI84.
- Simultaneous view of calculations, equations, table, and graph.
- You can transfer programs, lists, etc. from your TI calculator (TI83/TI84).
- Compatibility with CBL/CBR.

The minuses

- Lag time?
- Cost: \$120-\$150 (search the web!)
- Following that key sequence...

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Geogebra

The website (click here...) - lots of links from this site!

The program (click here...)

The pluses

- It combines what it says... geometry and algebra.
- It really is free!
- Available to students.
- Very interactive and dynamic; manipulate graphs, record your work.
- Run or create applets.

**Don't forget
Java!**

Some links not on Geogebra.org

The minuses

- Learning curve for high end use... if you need it.
- Use apart from or in addition to graphing calculator.
- Not much else I can think of!

www.dougkuhlman.webs.com

www.slu.edu/classes/maymk/GeoGebra

<http://mathplotter.lawrenceville.org/mathplotter/mathPage/index.htm>

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Winplot

The website (click here...)

The program (click here...)

The pluses

- It really is free!
- Available to students.
- Run or create applets.
- Work in 3 dimensions; see surfaces of revolution.

Relevant links

<http://www.math.hawaii.edu/lab/241/winplot.html>

<http://faculty.mathmadison.edu/alehnen/winptut/winpltut.htm>

The minuses

- Another learning curve...
- Use apart from or in addition to graphing calculator.

<http://www.linmcmullin.net/Winplot.html>

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Wingeom

The website (click here...)

The program (click here...)

The pluses

- It really is free!
- A potentially suitable, though not as powerful, alternative to Geometer's Sketchpad
- Available to students.
- More suitable for geometry applications.
- Work in 2 or 3 dimensions.

Relevant link

<http://www2.spsu.edu/math/>

The minuses

- Another learning curve...
- Use apart from or in addition to graphing calculator.
- Not as widely renowned.
- As stated, not as powerful as Geometer's Sketchpad.

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WCM Grapher

The website (click here...)

The program (click here...)

Users' Manual →



I haven't used this one much at all, but it's out there. It can also be used to create applets.

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Graph 4.3

The website (click here...)

The program (can't click here...)

Another program I haven't used but is available as a free download for you and your students.

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